



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

NCR Docket No. 11421

Application of:

WANG, D. G.

Group Art Unit: 2841

Serial No. 10/749,582

Examiner: Bui, Hung S.

Filed: December 31, 2003

For: DELIVERING CHILLED AIR TO COMPONENTS IN A HARDWARE
CABINET

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

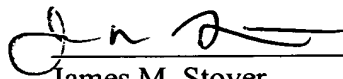
APPEAL BRIEF TRANSMITTAL LETTER

Sir:

Transmitted herewith for filing is an Appeal Brief to the Final Rejection dated
March 21, 2006.

- ☒ Please charge Deposit Account No. 14 0225 for the Appeal Brief fee or any other
fees associated with the filing of said Appeal Brief.
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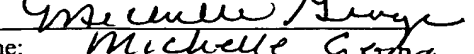
Respectfully submitted,


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CERTIFICATION OF MAILING UNDER 37 CFR 1.8

I hereby certify that this correspondence is being deposited with the United States Postal Service as
first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria,
VA 22313-1450 on 10/30/06.

By: 
Name: Michelle Grogan

(1) REAL PARTY IN INTEREST

The real party in interest in this matter is NCR Corporation, Dayton, Ohio, by virtue of an assignment recorded at reel 015534, frame 0546-47, on July 1, 2004.

(2) RELATED APPEALS AND INTERFERENCES

Applicant is aware of no active appeals or interferences or any judicial proceedings related to this application.

(3) STATUS OF CLAIMS

Claims 6-10 are pending. All have been rejected. A listing of claims is attached as an appendix to this brief.

(4) STATUS OF AMENDMENTS

All amendments, including the amendment submitted on July 12, 2006, in reply to the final Office action, have been entered prior to appeal and are reflected in the listing of claims appended to this brief. In its last amendment, Applicant canceled claims 1-5, amended claim 6, and added claim 10. In its Advisory Action of August 8, 2006, the Office entered Applicant's amendment of July 12 and maintained its rejection of the claims (including newly added claim 10) without any further discussion of the prior art.

(5) SUMMARY OF CLAIMED SUBJECT MATTER

Claim 1 covers a hardware cabinet (Fig. 3, 300) that includes a chassis (350) configured for mounting multiple heat-generating electronic systems (360_{1..Y}) and a door (310) mounted to the chassis to allow access into the cabinet (p. 11, ll. 17-19). The chassis and the door together define exterior surfaces for the cabinet. The door includes (1) a solid face (320) that extends from a top portion of the door along a majority of the door's length (p. 4, ll. 9-12), and (2) a

first opening (330) formed in a lower portion of the door to allow chilled air to enter the cabinet through one of the exterior surfaces (p. 4, ll. 12-15). The chassis is structured so that, when electronic systems are mounted in the cabinet, a plenum (370) is formed between the door and the electronic systems, such that air entering the cabinet is able to rise between the door and the electronic systems (*see* arrows in Fig. 3; p. 4, ll. 19-24). The cabinet also includes a second opening (340) positioned to allow chilled air to enter the cabinet through another of its exterior surfaces (p. 4, ll. 13-16).

Claim 7 adds that the second opening is positioned directly below the plenum (Fig. 3). Claim 8 adds that the second opening is positioned near the door (Fig. 3). Claim 9 adds that the the door includes a screen placed over the opening (p. 4, l. 14). Claim 10 adds that the second opening is positioned in the chassis (Fig. 3).

(6) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The ground of rejection to be reviewed by the Board is whether claims 6 and 9 are unpatentable under 35 U.S.C. §102(b) in view of U.S. Patent 5,414,591 to Kimura and whether claims 7-8 are unpatentable under 35 U.S.C. §103(a) in view of Kimura and French. Applicant is not certain from the Advisory Action whether claim 10 is subject to the 102(b) or 103(a) rejection.

(7) ARGUMENTS

The Kimura Reference

Kimura does not show, nor does it suggest, a hardware cabinet that has *both* (1) a door with “a solid face that extends from a top portion of the door along a majority of the door’s length” and “a first opening formed in a lower portion of the door to allow chilled air to enter the cabinet through one of [the cabinet’s]

exterior surfaces,” **and** (2) “a second opening positioned to allow chilled air to enter the cabinet through another of the [cabinet’s] exterior surfaces,” as claimed.

The cabinet shown in Kimura’s Figs. 1 & 2 includes a door that appears to have a solid surface on its front face and an opening in its bottom surface, through which all air entering the cabinet passes. In particular, Kimura’s column 4 states that the system includes “a door 38 for opening and closing the entire system” and “an inlet 39 of cooling air which is formed at the bottom of the door 38” (lines 15-17). The inlet (39) appears to be the only opening in the system that allows chilled air to enter the cabinet.

The cabinet shown in Kimura’s Fig. 3 has a door in which several “inlets 39 of downward louver windows 46a” are positioned along the entire length of the door’s front surface. The door does not have “a solid face” that extends “along majority of the door’s length.”

The result is that all claims are patentable over Kimura.

The French Reference

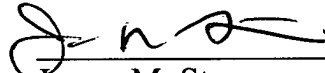
Like Kimura, French also fails to show or suggest a hardware cabinet that has (1) a door with “a solid face that extends from a top portion of the door along a majority of the door’s length” and “a first opening formed in a lower portion of the door to allow chilled air to enter the cabinet through one of [the cabinet’s] exterior surfaces,” and (2) “a second opening positioned to allow chilled air to enter the cabinet through another of the [cabinet’s] exterior surfaces,” as claimed. Accordingly, all of the claims are patentable of the combination of Kimura and French as well.

(8) CONCLUSION

The prior art cited by the Office does not show or suggest all of the limitations of any of the claims. The claims are therefore allowable over the art of record. Applicant therefore asks the Board to reverse the rejection and allow all of the claims.

Please apply any charges or credits that might be due, including the for an extension of time but excepting the issue fee, to Deposit Account 14-0225.

Respectfully,


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CLAIMS APPENDIX

6. A hardware cabinet comprising:
 - a chassis configured for mounting multiple heat-generating electronic systems; and
 - a door mounted to the chassis to allow access into the cabinet;
 - where the chassis and the door together define exterior surfaces for the cabinet;
 - where the door includes:
 - a solid face that extends from a top portion of the door along a majority of the door's length; and
 - a first opening formed in a lower portion of the door to allow chilled air to enter the cabinet through one of the exterior surfaces;
 - where the chassis is structured so that, when electronic systems are mounted in the cabinet, a plenum is formed between the door and the electronic systems, such that air entering the cabinet is able to rise between the door and the electronic systems; and
 - where the cabinet also comprises a second opening positioned to allow chilled air to enter the cabinet through another of the exterior surfaces.
7. The cabinet of claim 6, where the second opening is positioned directly below the plenum.
8. The cabinet of claim 6, where the second opening is positioned near the door.

9. The cabinet of claim 6, where the door includes a screen placed over the opening.

10. The cabinet of claim 6, where the second opening is positioned in the chassis.

EVIDENCE APPENDIX

There is no evidence to submit with this brief.

RELATED PROCEEDINGS APPENDIX

There are no proceedings related to this appeal.